

**REMARKS**

Favorable reconsideration of this application is respectfully requested in view of the claim amendments and following remarks.

**Status of Claims**

Claims 1, 4-12, 14, 16-20, 27-31, 34, and 37-38 are currently pending in the application of which claims 1, 14, 27, and 31 are independent. Claims 2-3, 13, 15, 21-26, 32-33, and 35-36 are canceled. Claims 37-38 are new.

**Summary of the Office Action**

Claims 31 and 34-35 were rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

Claim 24 was rejected under 35 U.S.C. §102(b) as being anticipated by Novaes et al. (2003/0012132), referred to as Novaes.

Claims 1, 4-5, 10, 12, 25-26, 31 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of O'Neal et al. (2003/0051051), referred to as O'Neal.

Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of O'Neal, as applied to claim 1 above, and further in view of "Application Level Hand-off Support for Mobile Media Transcoding Sessions" by Roy et al., referred to as Roy.

Claims 7-8 and 13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of O'Neal and further in view of "Building Topology-Aware Overlays using Global Soft-state" (HPL-2002-281) by Xu et al., referred to as Xu.

Claims 21 and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of Geddes (6751661) and further in view of Xu.

Claim 11 was rejected under 35 U.S.C. §102(a) as being unpatentable over Novaes in view of O'Neal and further in view of Mandato et al. (2005/0157660), referred to as Mandato.

Claim 9 was rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of O'Neal and further in view of Rune et al. (2004/0156384), referred to as Rune.

Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of Banerjee et al. ("Construction of an Efficient Overlay Multicast Infrastructure for Real-time Application"), referred to as Banerjee.

Claims 27, 15-18 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of Banerjee and further in view of Xu.

Claims 19 and 28-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of Banerjee in view of Xu and further in view of HPL-2002-126R2 by Xu et al. ("Turning Heterogeneity into an Advantage in Overlay Routing").

### **Drawings**

The Office Action did not indicate whether the formal drawings filed with the application are accepted. Indication of acceptance of the drawings is requested.

### **Claim Rejection Under 35 U.S.C. §101**

Claims 31 and 34-35 were rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Independent claim 31 is amended to

recite a computer readable storage device. Page 43, lines 16-22 provides support for these features. The computer readable storage device is believed to be statutory.

**Claim Rejection Under 35 U.S.C. §102**

Claim 24 was rejected under 35 U.S.C. §102(b) as being anticipated by Novaes et al. (2003/0012132), referred to as Novaes. Claim 24 is canceled, and the rejection is moot.

**Claim Rejections Under 35 U.S.C. §103(a)**

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in *KSR International Co. v. Teleflex Inc.*, 550 U.S.398, 82 USPQ2d 1385 (2007):

“Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” Quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966).

As set forth in MPEP 2143.03, to ascertain the differences between the prior art and the claims at issue, “[a]ll claim limitations must be considered” because “all words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385. According to the Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of *KSR International Co. v. Teleflex Inc.*, Federal Register, Vol. 72, No. 195, 57526, 57529 (October 10, 2007), once the *Graham* factual inquiries are resolved, there must be a determination of whether the claimed invention would

have been obvious to one of ordinary skill in the art based on any one of the following proper rationales:

(A) Combining prior art elements according to known methods to yield predictable results; (B) Simple substitution of one known element for another to obtain predictable results; (C) Use of known technique to improve similar devices (methods, or products) in the same way; (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results; (E) “Obvious to try”—choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; (F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations would have been predictable to one of ordinary skill in the art; (G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, 82 USPQ2d 1385 (2007).

Furthermore, as set forth in *KSR International Co. v. Teleflex Inc.*, quoting from *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006), “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasonings with some rational underpinning to support the legal conclusion of obviousness.”

Therefore, if the above-identified criteria and rationales are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

• Claims 1, 4-5, 10, 12, 25-26, 31 and 34

Claims 1, 4-5, 10, 12, 25-26, 31 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of O’Neal et al. (2003/0051051), referred to as O’Neal.

Claims 25-26 are canceled.

Independent claim 1

Independent claim 1 is amended to recite,

transmitting a complaint to a parent node of the child node, the complaint indicating a degradation of quality of service at the child node,

if the parent node does not perceive the degradation of quality of service, a request is sent to a global information table for candidate parent nodes for the child node, and the request includes location information for the child node,

if the parent node perceives the degradation of quality of service, the parent node sends a complaint to the parent node's parent node to determine if the parent node's parent node also perceives the degradation of quality of service, and the complaint includes location information for the parent node.

Independent claim 31 recites similar features.

Novaes in view of O'Neal fails to teach or suggest these features. On page 21 of the final rejection, the Examiner asserts the publisher node of Novaes is also a parent node, and the publisher node receives a complaint from a child node. As indicated above, claim 1 is amended to recite, "if the parent node perceives the degradation of quality of service, the parent node sends a complaint to the parent node's parent node to determine if the parent node's parent node also perceives the degradation of quality of service." In Novaes, the publisher node does not perceive or otherwise determine whether it perceives a degradation of quality of service, and does not have a parent node to send its complaints.

O'Neal also fails to teach these features. O'Neal was cited as allegedly disclosing determining whether a degradation of quality of service is in a child-parent link or an upstream link. However, O'Neal fails to teach the parent node determines whether it perceives the degradation of quality of service, and then the parent node sends a complaint to

its parent node if it also perceives the degradation of quality of service. Also, claim 1 recites "the request includes location information for the child node," and "the complaint includes location information for the parent node." Novaes in view of O'Neal fails to teach or suggest sending the claimed location information for the child node and parent node responsive to the parent node perceiving or not perceiving the degradation of quality of service, as claimed.

For at least these reasons, claims 1, 4-5, 10, 12, 31 and 34 are believed to be allowable.

- **Claim 6**

Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of O'Neal, as applied to claim 1 above, and further in view of "Application Level Hand-off Support for Mobile Media Transcoding Sessions" by Roy et al., referred to as Roy.

Claim 6 is believed to be allowable at least for the reasons claim 1 is believed to be allowable.

- **Claims 7-8 and 13**

Claims 7-8 and 13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of O'Neal and further in view of "Building Topology-Aware Overlays using Global Soft-state" (HPL-2002-281) by Xu et al., referred to as Xu.

Claims 7-8 are believed to be allowable at least for the reasons claim 1 is believed to be allowable. Claim 13 is canceled.

- **Claims 21 and 35**

Claims 21 and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of Geddes (6751661) and further in view of Xu.

Claims 21 and 35 are canceled.

- **Claim 11**

Claim 11 was rejected under 35 U.S.C. §102(a) as being unpatentable over Novaes in view of O'Neal and further in view of Mandato et al. (2005/0157660), referred to as Mandato.

Claim 11 is believed to be allowable at least for the reasons claim 1 is believed to be allowable.

- **Claim 9**

Claim 9 was rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of O'Neal and further in view of Rune et al. (2004/0156384), referred to as Rune.

Claim 9 is believed to be allowable at least for the reasons claim 1 is believed to be allowable.

- **Claim 14**

Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of Banerjee et al. ("Construction of an Efficient Overlay Multicast Infrastructure for Real-time Application"), referred to as Banerjee.

Independent claim 14 recites features similar to claim 1 described above, which are not taught by Novaes for the reasons stated above. Banerjee also fails to teach or suggest these features.

- **Claims 27, 15-18 and 20**

Claims 27, 15-18 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of Banerjee and further in view of Xu.

Independent claim 27 recites features similar to claim 1 described above, which are not taught by Novaes in view of Banerjee. Xu also fails to teach or suggest these features.

Claim 15 is canceled.

Claims 16-18 and 20 are believed to be allowable for the reasons claim 14 is allowable.

- **Claims 19 and 28-30**

Claims 19 and 28-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Novaes in view of Banerjee in view of Xu and further in view of HPL-2002-126R2 by Xu et al. ("Turning Heterogeneity into an Advantage in Overlay Routing").

Claims 19 and 28-30 are believed to be allowable for the reasons their respective independent claims are allowable.

- **New Claims 37 and 38**

Claim 37 recites, "at the parent node, sending the request to a distributed hash table overlay network storing the global information table." None of the prior art of record discloses sending the request to a distributed hash table from the parent node.

Claim 38 recites, "using the location information for the parent node to identify candidate parent nodes for the parent node if the parent's node parent node also perceives the



degradation of quality of service." None of the prior art of record discloses sending location information for the parent node to identify candidate parent nodes for the parent node.

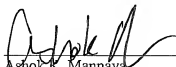
**Conclusion**

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited. Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to Deposit Account No. 08-2025.

Respectfully submitted,

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